

Application No. 10/748,965
Case No. UC0228USNA

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Remarks

Claims 26-32 are pending in the application. Claim 26 is amended to address the Examiner's requirement of correcting "solvent" in line 4 thereof to read "co-solvent". Claim 30 has been rewritten as new claim 38 to correct the inappropriate dependency cited by the Examiner, and claims 31 and 32 are amended so that both claims depend from new claim 38; claim 30 is canceled. These amendments overcome the inappropriate dependencies identified by the Examiner. Claim 31 is also amended in line 2 to refer to the carboxylic acid "co-solvent" to maintain a proper antecedent basis. The Examiner has indicated that claims 28-29 would be allowable if written in independent form. An amendment to so rewrite those claims has not been made as yet, pending the disposition of Applicant's remarks in respectful traverse concerning the new ground for rejection of claims 26 and 27. Applicant wishes to thank the Examiner for identifying issues with claim deficiencies and for indicating the allowability of claims 28 and 29 under the conditions given.

Claims 26 and 27 stand rejected under 35 U.S.C. § 102(e) as anticipated by Ibar, U.S. Patent No. 6,586,041. Ibar discloses an electrostatic dissipative (ESD) composition. The ESD composition comprises an aqueous conductive polymer dispersion and an aqueous carrier dispersion (see, inter alia, Col. 5, lines 20-23; and Col. 8, lines 24-43; and Col. 9, lines 42-54). The "conductive portion" of the aqueous conductive polymer dispersion, which Ibar does not disclose as having any utility by itself, comprises a blend of conductive polymer and counter ion polymer, and water (Col. 9, lines 18-28). The aqueous carrier dispersion comprises a polyurethane crosslinkable composition (Col. 9, lines 55-59). The preparation of Ibar's ESD composition requires combining the aqueous conductive polymer dispersion (conductive polymer + counter ion polymer) with a crosslinking agent (such as an amine) and optionally a water-miscible organic solvent (Col. 10, lines 35-39). Once this ternary or quaternary solution is mixed sufficiently (about 2 minutes with light agitation), the aqueous carrier dispersion is added, and this solution is mixed with light agitation, for about 5 minutes, to obtain a uniform blend of the aqueous conductive polymer dispersion, crosslinking agent, optional solvent, and aqueous carrier dispersion (Col. 10, lines 48-63). The amine is only added to Ibar's conductive polymer dispersion to provide a crosslinking agent for the cross-linkable polyurethane in the carrier dispersion. The combination of the amine and the urethane allow for crosslinking the ESD composition in a curing process (generally, Col. 15, lines 14-31).

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Table 2 (Col. 21) identifies the components of an ESD composition of Ibar's invention, and these include the conductive polymer dispersion, polyurethane, triethylamine, and n-methyl pyrrolidone. Col. 21, lines 5-13 depicts the preparation of the aqueous conductive polymer, water-miscible organic solvent, and crosslinking agent phase and its stabilization prior to combination with the aqueous carrier dispersion to form the ESD composition.

The claims under review are drawn to a method for varying conductivity of a PEDOT/PSS layer where the method comprises adding an effective amount of at least one organic co-solvent comprising an amine solvent. Ibar, by contrast, discloses a method for preparing ESD compositions and ESD compositions which are anti-static coatings. Ibar does not disclose the use of amines as solvents or as conductivity-varying agents; rather, water-miscible organic solvents are optional, and the amine is applied as a crosslinking agent to react with polyurethane during a curing step after the ESD is prepared and applied to a substrate. The amine crosslinking agent is added dropwise until a stable pH for the aqueous conductive polymer dispersion/crosslinking agent/optional solvent phase has been achieved.

Applicant respectfully submits that Ibar not only fails to disclose each and every element of the rejected claims, but also that whatever superficial commonality that appears to exist between the Ibar disclosure and the rejected claims fails to capture the claimed invention in the manner disclosed in the claims. As stated in *Scripps Clinic & Research Found. V. Genentech Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991), "There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention."

At the most fundamental level, the Office Action does not establish *prima facie* anticipation by citing that Ibar adds triethylamine to a conductive polymer blend of PEDOT/PSS. In Ibar, that particular step is preparatory to combining the blend (including an optional water-miscible organic solvent) with an aqueous carrier dispersion to form a stable ESD that will crosslink (via the amine and the polyurethane in the two separate phase components of the ESD) during a curing step after the ESD is applied to a substrate. Ibar discloses that the amine is useful for controlling the pH of the aqueous conductive polymer dispersion, and that the amine should be added effectively to produce a stable dispersion for the time necessary to combine the first dispersion with the second [aqueous carrier] dispersion which is carried out to form the ESD

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composition. The Office Action does not establish that a person having ordinary skill in the field of the invention would have known that the addition of an amine to a PEDOT/PSS blend could be used to vary the conductivity of the PEDOT/PSS blend. Therefore, no *prima facie* case of anticipation has been established.


Finally, to arrive at the claimed invention from Ibar requires modification of Ibar and such modification is not permissible for an anticipation rejection. Ibar's aqueous conductive polymer dispersion has no disclosed stand-alone utility. Rather, Ibar discloses an ESD composition that requires the mixing of two separate dispersions and crosslinking the amine crosslinking agent in a first dispersion with the polyurethane crosslinkable component in the second dispersion. The amine in Ibar is a crosslinking agent, not a solvent. It does not serve a solvent function; it is a crosslinker for the polyurethane, and serves no other function.

In summary, Applicant respectfully submits that *prima facie* obviousness has not been established on the one hand, and on the other, that Ibar's synthetic procedures and ESD compositions do not anticipate the claimed method of varying the conductivity of a PEDOT/PSS layer cast from aqueous solution onto a substrate by adding an effective amount of at least one amine co-solvent to the aqueous solution.

Conclusion

Applicant respectfully submits that claims 26-32 are in condition for allowance. A notice of allowance for these claims is earnestly solicited.

Respectfully submitted,



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